

### Trichlorethylene (TCE) Question

- **While working at US EPA from 1980 to 1995, Dr. Dourson was involved in the development of methods for estimating safe doses for the public. The reference concentration (RfC)/reference dose (RfD) methodology is used by the Agency for assessing non-cancer health effects.**
  - Dr. Dourson began his career at the EPA working in the Office of Research and Development for 15 years. EPA recognized him for his work as one of the early developers of the Integrated Risk Information System (IRIS), a program at EPA which evaluates the hazards of chemicals.
  - Since that time he has published extensively on the evolution and application of science-based uncertainty factors in RfC/RfD assessments.
- **As a recognized expert in the field, Dr. Dourson worked with a group of scientists to develop a protective range for TCE at hazardous waste sites using the best available science and EPA's methods. The group requesting Dr. Dourson's work included representatives from:**
  - United States Army Corps of Engineers
  - Oregon Department of Environmental Quality
  - Indiana Department of Environmental Management
  - U.S. Environmental Protection Agency
  - Texas Commission on Environmental Quality
  - U.S. Agency for Toxic Substance & Disease Registry
  - Representatives of tribal communities
- **The TCE team published a report entitled "Guidance for Contaminated Sites: TCE Risk Assessment Case Study" in April 2013, with recommendations for risk managers to use when making cleanup decisions at hazardous waste sites. The report recommends that toxicity can be evaluated with a range.**
- In 2016, Dr. Dourson was the lead author of an article proposing a safety range for TCE based on three key studies that EPA relies on for its reference dose methodology. The peer-reviewed article was published in Regulatory Toxicology and Pharmacology journal.
- The 2016 article establishes a method for estimating uncertainty and proposes a safety range. As it explains, exposures of TCE outside this range could result in negative health effects. Several U.S. states, including Indiana and Missouri are reviewing this article to inform their decision making.

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